

I think...
I believe...
I did....

Fostering Creativity & Academic Excellence



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***‘The need for global,
creative, and
entrepreneurial talents is
clear’ (Zhao, p.250,
World Class Learners).***

A recent extensive study by Carnegie Corporation of New York describes 'next generation' learning as *'personalized and deeply engaging, focused on deeper learning of higher-order content, complex skills and the integration of the two. It can take place any time and any place, is enabled by new tools—technology, performance-based assessments, and flexible learning environments—and offers students socio-emotional supports in their learning.'*

Whose learning?



‘validating and authorising them to represent their own ideas, opinions, knowledge and experiences throughout education in order to improve our schools’ (Fletcher 2005).

Enriching the Learning

- Using the data
- Da Vinci program
- Personalising the learning
- Collective meaning making
- Symphony of pedagogical approaches
- Assessment *for, as* and *of* learning
- Integrated learning assessment tasks
- Global connections
- International competitions
- Student choice and voice



Da Vinci Program



- Designed to capture the interest and talents of the most academically able students
- Students participate in the program in their area or areas of greatest strength and interest
- Years 4 – 10: 7-10 in English, Math Science, History and Geography
- Content and text choices differentiated
- Achieved through the provision of programming and classes that are designed to enrich, excite and challenge students
- Syllabus compaction
- Differentiated curriculum
- Placement: External testing, NAPLAN, teacher and parent recommendation
- Monitoring ongoing





- **Curiosita:** An insatiably curious approach to life and an unrelenting quest for continuing learning
- **Dimostrazione:** A commitment to test knowledge through experience, persistence, and a willingness to learn from mistakes.
- **Sensazione:** The continual refinement of the senses, especially sight, as the means to enliven experience.
- **Sfumatio:** A willingness to embrace ambiguity, paradox and uncertainty.
- **Arte/Scienza:** The development of the balance between science and art, logic and imagination
- **Corporalita:** The cultivation of grace, ambidexterity, fitness, and poise.
- **Conessione:** A recognition of and appreciation for the inter-connectedness of all things and phenomena – systems thinking

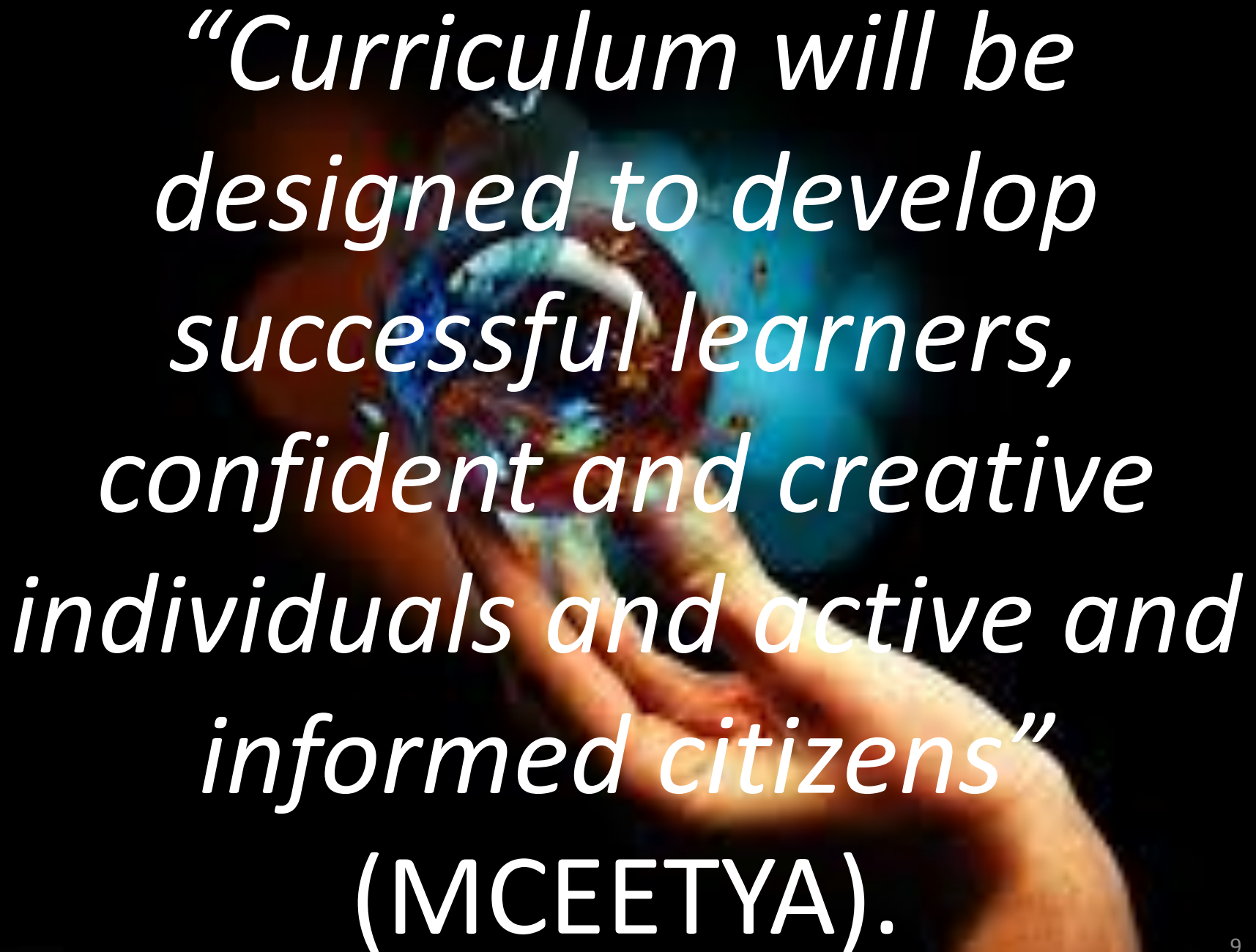




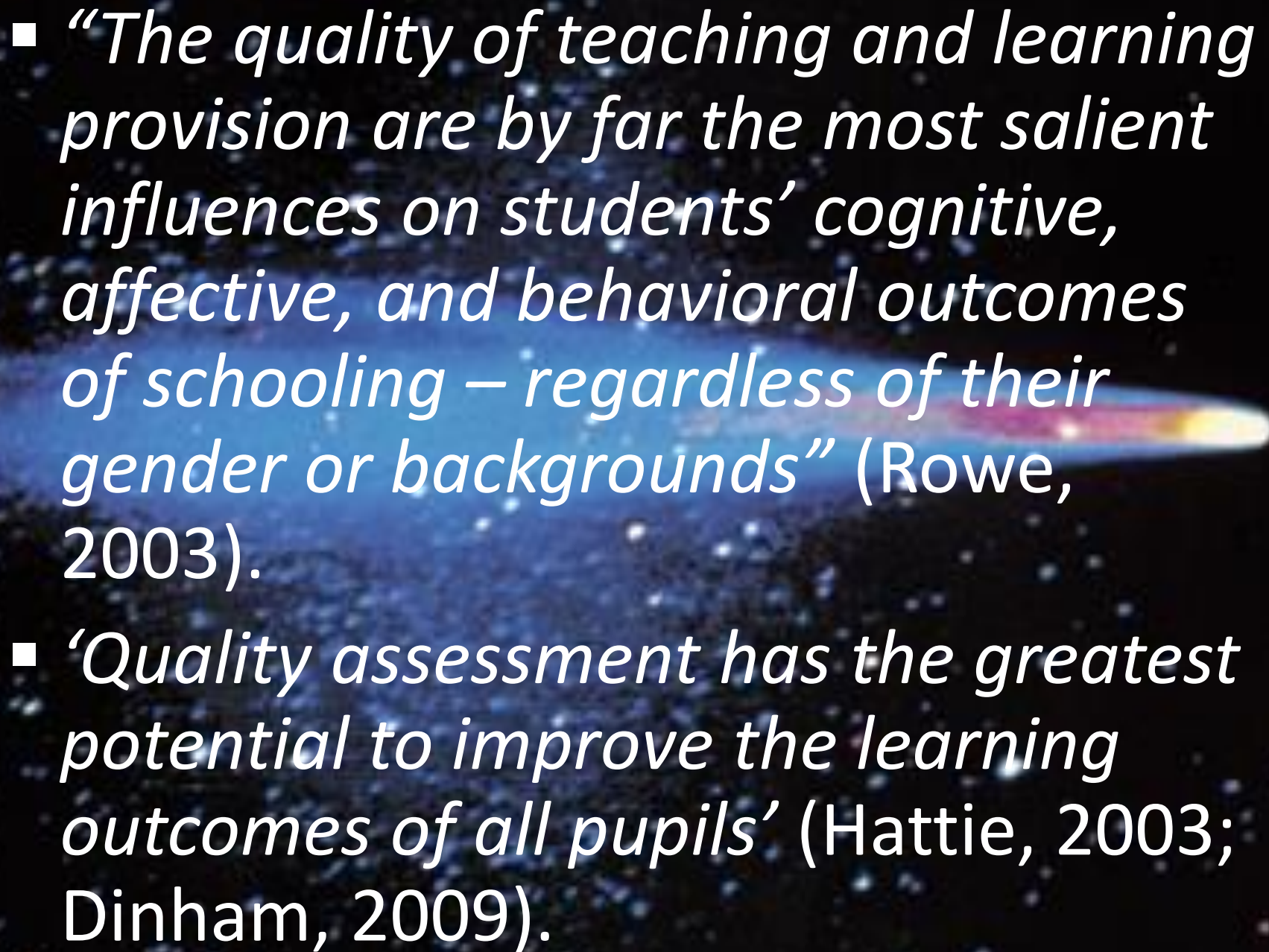
Positive Psychology

- Three central concerns: positive emotions, positive individual traits, and positive institutions.
- Focus on strengths and virtues, such as: courage, compassion, resilience, creativity, curiosity, integrity, self-knowledge, moderation, self-control, and wisdom
- Flow: Professor Mihaly Csikszentmihalyi



A close-up photograph of a hand gently cradling a small, realistic model of the Earth. The hand is positioned in the lower right, with fingers slightly curled around the globe. The globe shows clear details of the continents and oceans. The background is dark and out of focus, featuring a vibrant nebula with shades of blue, purple, and orange, suggesting a cosmic or educational theme.

*“Curriculum will be
designed to develop
successful learners,
confident and creative
individuals and active and
informed citizens”
(MCEETYA).*

- 
- A background image of a dark night sky filled with stars. A bright comet with a long, multi-colored tail (showing shades of blue, purple, and yellow) is streaking across the middle of the frame from right to left.
- *“The quality of teaching and learning provision are by far the most salient influences on students’ cognitive, affective, and behavioral outcomes of schooling – regardless of their gender or backgrounds” (Rowe, 2003).*
 - *‘Quality assessment has the greatest potential to improve the learning outcomes of all pupils’ (Hattie, 2003; Dinham, 2009).*

Unleashing Creativity

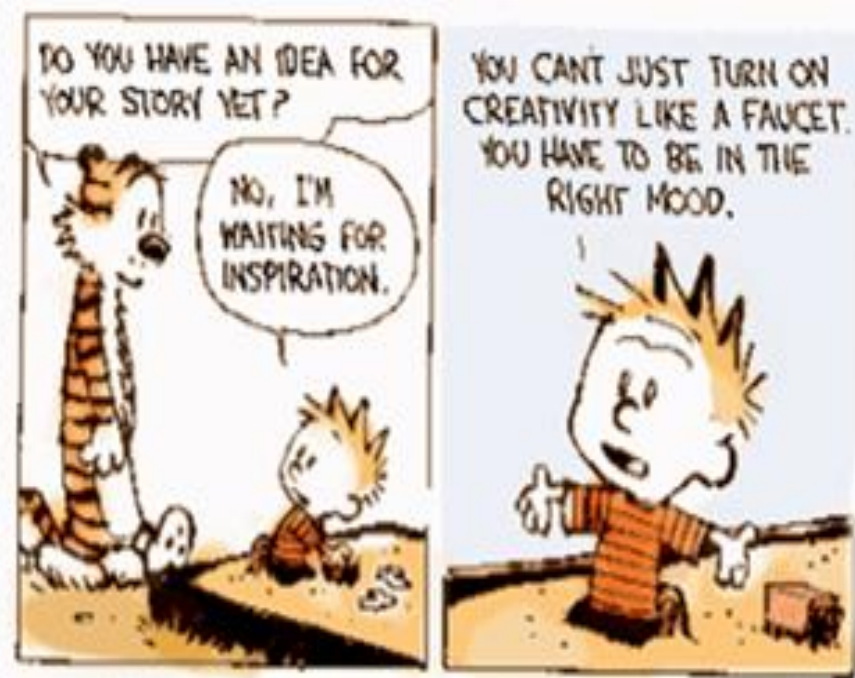
- *“Creative skills aren’t just about good ideas, they are about having the skills to make good ideas happen” (Collard)*
- Torrance called for explicit teaching of creativity. He advocated that it was skill-specific, requiring intentional instruction.



Creativity & Academic Excellence

Rufus Black asserts that creativity flourishes when:

- a specific goal is provided
- there are clear guidelines
- tasks are action oriented
- a task is relevant and time-bound.





Australian Curriculum

Students develop capability in critical and creative thinking as they learn to:

- generate and evaluate knowledge
- clarify concepts and ideas
- seek possibilities
- consider alternatives
- solve problems
- use reason, logic, resourcefulness, imagination and innovation
- Apply skills and knowledge to a new situation

An abstract, textured background with a color palette of warm oranges, yellows, and reds at the top, transitioning into cooler blues and greens in the middle, and a solid red band at the bottom. The texture is painterly and layered. In the upper right quadrant, a quote in a small, elegant script font reads: "The real voyage of discovery is not in seeking new places, but in seeing with new eyes. - Marcel Proust".

Torrance Model for Creativity

- **Heightening Anticipation:** Make connections between the classroom and student's real lives. *'Create the desire to know.'*
- **Deepen Expectations:** Engage the curriculum in new ways.
- **Keep it going:** Continue the thinking beyond the lesson or classroom. Find ways to extend learning opportunities at home and in the community.



Influential Factors

- Confidence and courage: Total fitness
- Risk-taking: Essential skills and knowledge, and immersion in rich texts, ideas and language
- Pedagogy: The resources, the art of teaching, big ideas, learning applied in new situations and strategic questioning
- Collaborative learning strategies and the flow
- Balancing assessment *of, for* and *as* learning and the *feed-forward* provided
- Connected ideas and learning across disciplines
- Global connections
- Student voice



Confidence and Courage

Focus on learning

- What do my students need to learn?
- Why does it matter?
- What do they already know?
- How will they demonstrate learning?
- How will they get there?
- How can they use technology to get there?
- How well do I expect them to do it?

Big Ideas

- Identify what is known
- Explicit teaching of skills
- Conceptual programming uncovering the learning
- Visible learning
- Space for thinking and creativity
- Challenging and provocative tasks for home-learning
- Rich and extensive resources





- **Essential Learning Goal:** Students to appreciate why and how imagery has been crafted in writing.
- **Overarching Question:** How and why do you enrich writing through imagery?



Imagery

Key Learning Ideas:

- The power of language to create evocative images
- How writers craft and use imagery to convey meaning and provoke feelings
- How technology can be used to enhance the meaning of a text



To see a world in a grain of sand,
And a heaven in a wild flower,
Hold infinity in the palm of your
hand, And eternity in an hour.

William Blake – "Auguries of Innocence"

Imagery

*Don't tell me
the moon is
shining; show
me the glint of
light on broken
glass' Anton
Chekhov.*



Imagery

- **Polysemy:** The verbs
- **Amphiboly:** syntactical ambiguity
- **Synecdotics:** *'the joining together of different and apparently irrelevant elements'*
- **Visceral imagery:** Sight, feelings and emotions
- **Synaesthesia:** Combining the senses
- **Voice:** Perspective and experiences
- **Rich texts:** Poetry, prose extracts, film extracts, great speeches...



Imagery

Assessment *of* and *as* Learning:

- Composing original multimedia text featuring imagery
- Evaluation of use of imagery





Mirror neurons:

- *'few educators understand exactly how to use the Pygmalion effect or self-fulfilling prophecy as a purposeful pedagogical tool to convey positive expectations'* Tauber (1998)
- Cooley (1999) – looking glass – we see ourselves as others see us.



High Expectations

*‘Schools that establish high expectations for all students and provide the support necessary to achieve these expectations have high rates of academic success’
(Bernard 1995).*



- *'Students internalise the belief teachers have about their ability; they rise and fall to the level of expectation. When teachers believe in students, students believe in themselves' (Raffini, 1993).*
- *'Teachers expectations for students – whether high or low – can become a self-fulfilling prophecy. That is, students tend to give to teachers as much or as little as teachers expect of them' (Lumsden 1991).*
- *'Low ability students are normally given fewer opportunities to learn new material, asked less stimulating questions, given briefer and less informative feedback, called on less frequently and given less time to respond than students who are considered high in ability' (Cotton 1989).*

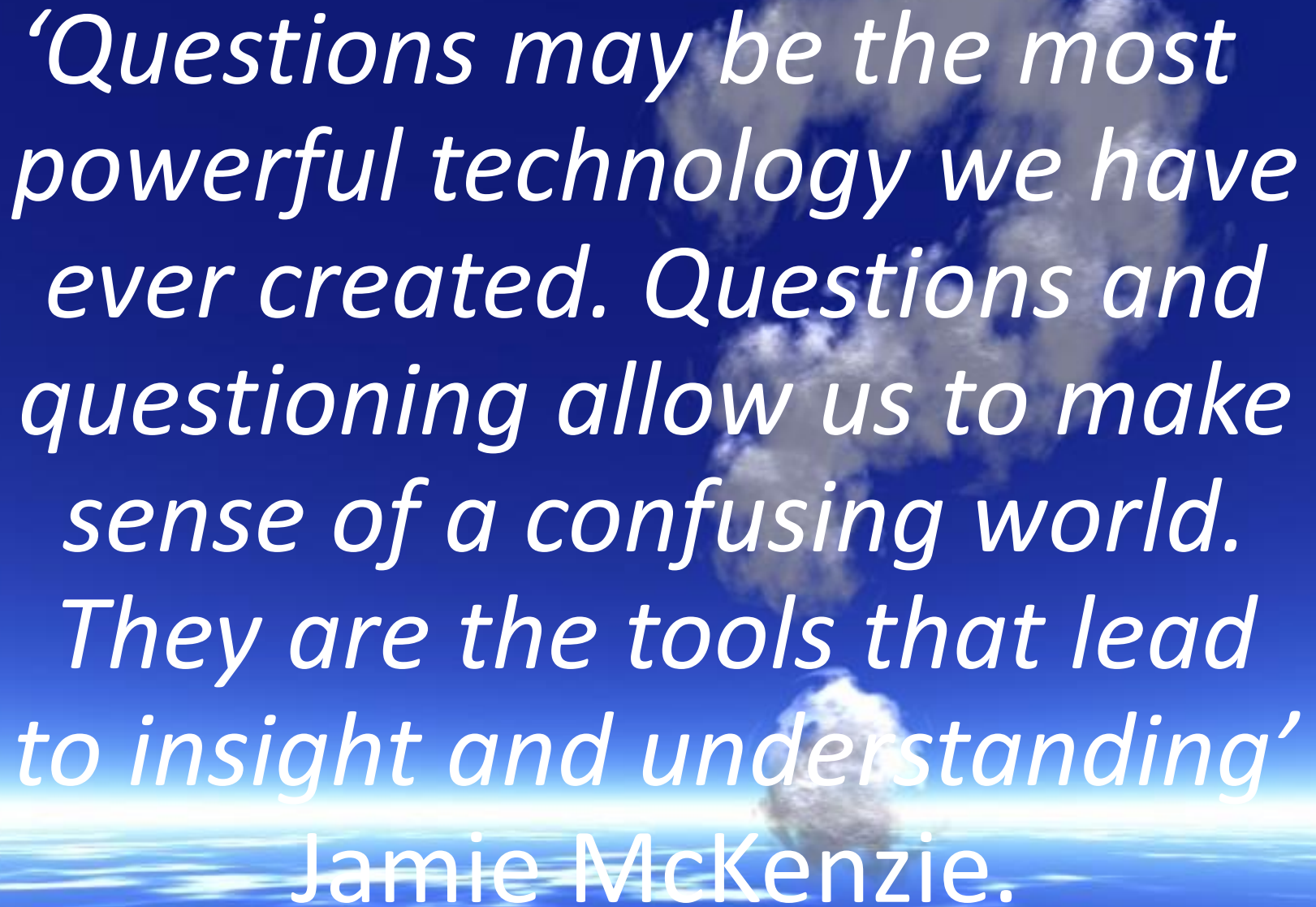
Collegiality

- Csikszentmihalyi (1996) states creativity flourishes in a '*congenial environment*'. Creative thinking needs to be shared and validated by others in a socially supportive atmosphere.
- Sawyer (2007) claims that one of the key conditions for more creative schools is more collaborative cultures that include professional collegiality between teachers and cooperative learning among students.



Csikszentmihalyi: *Flow and Creativity*

- Curiosity is ignited!
- There are clear goals every step of the way
- There is immediate feedback to one's actions
- There is a balance between challenges and skills
- Action and awareness are merged
- There is no worry of failure
- Self-consciousness disappears
- The sense of time becomes distorted
- The activity becomes autotelic - experience flow!

The background of the image is a vibrant blue sky with soft, white, wispy clouds. A bright, glowing light source, likely the sun or moon, is positioned on the horizon line, creating a lens flare effect and illuminating the clouds from below. The overall atmosphere is serene and inspirational.

‘Questions may be the most powerful technology we have ever created. Questions and questioning allow us to make sense of a confusing world. They are the tools that lead to insight and understanding’
Jamie McKenzie.

Design

- *“Teaching is the art of asking questions” Socrates.*
- Questions are not just devices to evaluate specifics of learning but a means of actively **promoting conceptual thinking, deepening learning and understanding.**
- Questions can be more powerful than answers.
- Teaching is about designing the learning environment

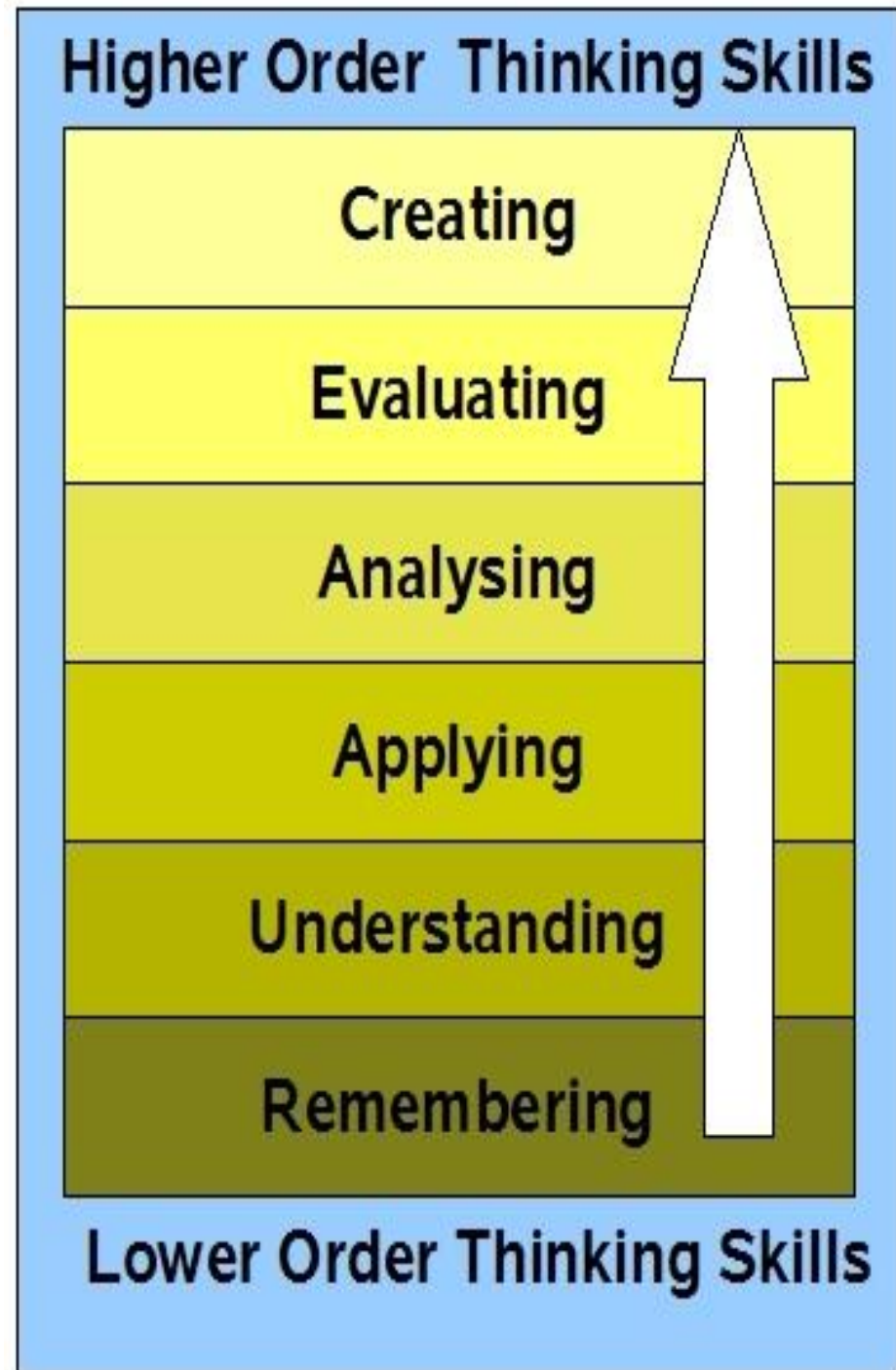


ASK

TO LEARN, LEARN TO ASK

Bloom's Model

- **C:** What if...? & Can you see other possibilities?
- **E:** Is there a better solution?
- **AN:** How was the setting represented?
- **AP:** Could you apply this approach to...?
- **U:** Who is the main character?
- **R:** Can you name the...?



S.C.A.M.P.E.R

- **S:** What if I change or swap this?
- **C:** What can I blend or combine?
- **A:** What could I substitute?
- **M:** What will happen if I add...?
- **P:** How could I use this somewhere else?
- **E:** What happens when I remove...?
- **R:** What if I did this the other way?

Substitute something

Combine it with something else

Adapt something to it

Modify or Magnify it

Put it to some other use

Eliminate something

Reverse or Rearrange it

Williams' Model - Extending

- **Paradox:** Paradoxes can be used to evaluate ideas and challenge pupils to reason and find proof.
- **Analogy:** Pupils find the similarities between things and compare one thing to another.
- **Discrepancy:** Pupils should be challenged to discuss what is not known or understood.
- **Provocative questions:** These are questions that require thoughtful consideration to clarify meaning or develop new knowledge.
- **Organised Random Search:** Given a situation or body of knowledge, pupils search for other information to answer questions such as, what would you do or what would you have done?
- **Tolerance for Ambiguity:** Open-ended questions
- **Intuitive Expression:** Empathy questions
- **Evaluative Situations:** Evaluate solutions and answers in terms of their consequences and implications — pose the question what if?
- **Visualisation Skills:** Provide opportunities for pupils to perceive or visualise themselves in many contexts.

Socratic Questioning

Questions that Probe Reasons and Evidence		
Questions of Clarification	Questions that Probe Assumptions	Questions that Probe Reasons and Evidence
What do you mean by ____? How does this relate to our problem, discussion and/or issue?	What are you assuming? Why would someone make that assumption?	What would be an example? How do you know?
Questions about Viewpoints or Perspectives	Questions that Probe Implications and Consequences	Questions about the Question
What effect would that have? What is an alternative?	How can we find out? How could someone settle this question?	What bigger issue is the question trying to get you to think about and/or investigate?

Langford's 5 Whys


- Ask a question
- This leads to a second question
- Ask three more questions
- Probes and deepens understanding
- Thwarts superficial responses



Flip Learning

- Students taking responsibility for their own learning
- Provide the content and resources
- Students generate the questions
- *'If children aren't asking questions, they're being spoon-fed. That might be effective in terms of getting results, but it won't turn out curious, flexible learners suited to the 21st century'* Guy Claxton.





*Fostering Creativity &
Academic Excellence through
Assessment of, for and as
learning*

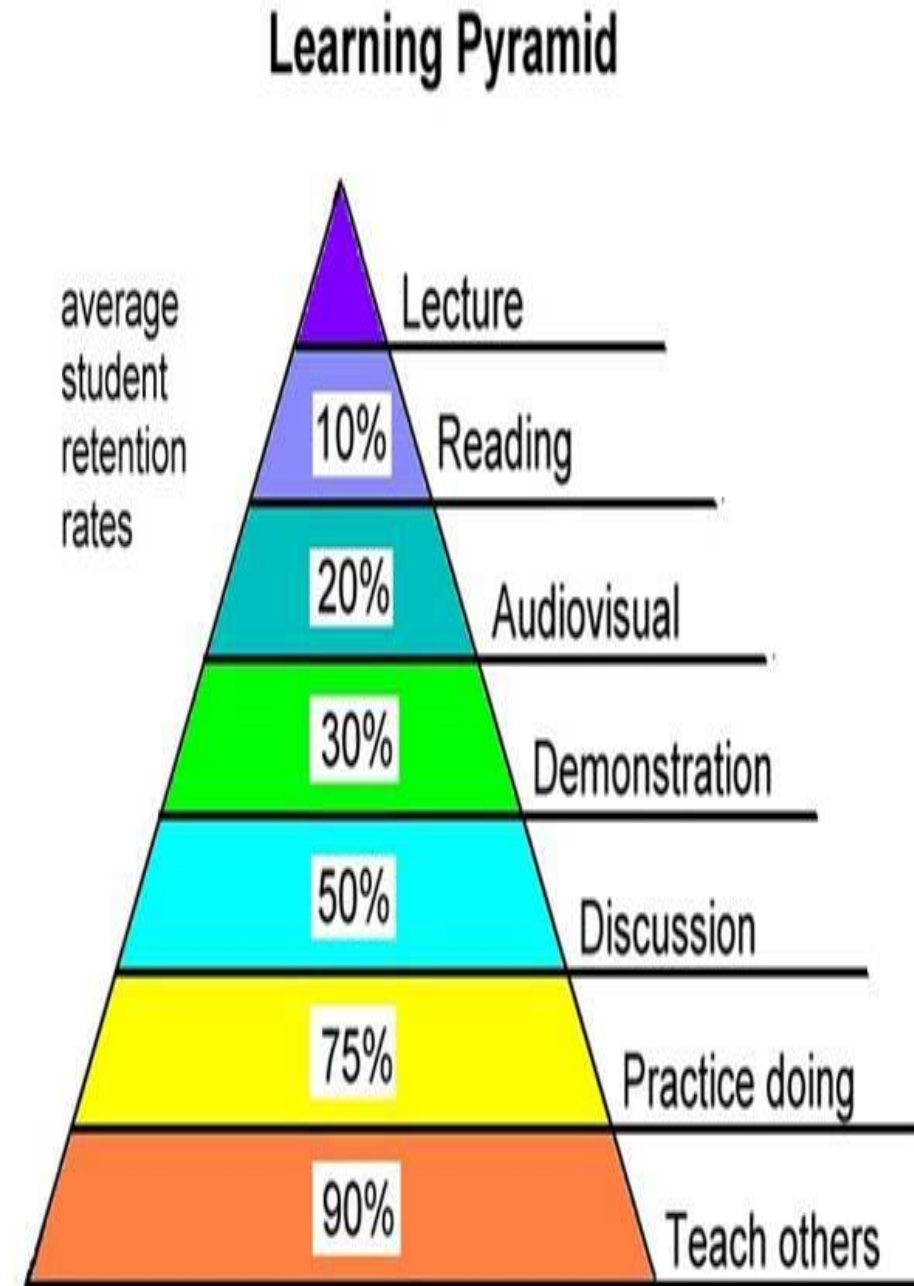
Creativity through assessment

- Balancing traditional and authentic assessment.
- Torrance asserts that when learning is connected to the real world this will '*Create the desire to know*'.
- Craft (2005), Runco (2003) and Williamson & Payton (2009) have demonstrated that motivation is a powerful activator for creativity.



Higher-order Tasks

- Investigation
- Critical thinking
- Active learning
- Collaborating and sharing
- Problem solving
- **Teaching others**
- Evaluating and reflecting



Source: National Training Laboratories, Bethel, Maine

Deep learning: Identification of concept, skills, knowledge and understanding to be assessed



Essential learning goal & key learning ideas



Precision: Data & pre-assessment



Targeted assessment

Formative (A4L & AasL)



Summative



Peer/Self assessment and reflection



Timely and precise *feed-forward*

Creating and Producing

- Differentiates assessment
- Student choice
- Medium of production
- Learning objects
- Fosters creativity and risk taking
- Collaboration
- Evaluation



Assessment *as* Learning

- Students and teachers set learning goals, share learning intentions and success criteria, and evaluate their learning through dialogue and self and peer assessment.
- Students gain a deeper understanding of their skills, knowledge, level of understanding and the expected standards.
- Students develop ownership of the learning process.

WHAT MATTERS MOST
IS HOW YOU SEE YOURSELF.



Peer Assessment

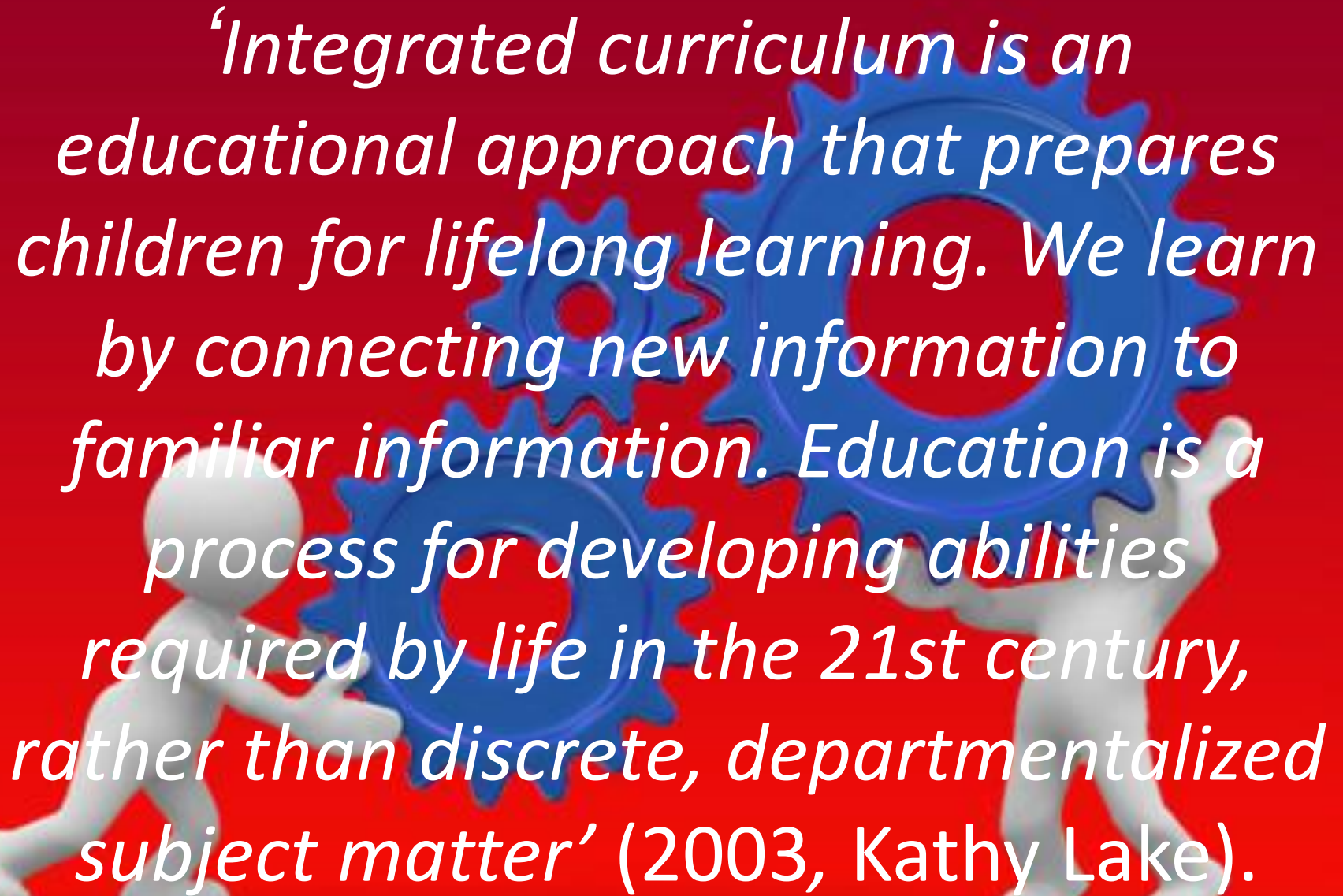
- *“When students are more active participants in the whole process, then feedback is likely to be most useful to students’ learning” (Hattie & Timperley, 2007).*
- *“When students get to see other students’ work it deepens understanding of the learning goals” (Nicol, 2008)*



Feed-forward

- Precise
- Strategic
- Timely
- Frequent (Holmes & Papageourgiou, 2009)
- Encourages students to make the difference and do resubmits



The background features a solid red field. Overlaid on this are several large, blue, interlocking gears. Two white, 3D-rendered human figures are positioned at the bottom, appearing to push or interact with the gears. The figure on the left is in a walking or pushing motion towards the center. The figure on the right is also in a similar motion, pushing towards the center. The text is written in a white, italicized serif font, centered horizontally and spanning most of the vertical space.

‘Integrated curriculum is an educational approach that prepares children for lifelong learning. We learn by connecting new information to familiar information. Education is a process for developing abilities required by life in the 21st century, rather than discrete, departmentalized subject matter’ (2003, Kathy Lake).

Integrated Tasks

- Making meaningful connections between disciplines through integrated assessment.
- Recognition that new ways of thinking are borne out of deep knowledge and its application across disciplines.
- *‘Education is a process for developing abilities required by life in the 21st century, rather than discrete, departmentalized subject matter’ (2003, Kathy Lake).*



The title 'Osborne-Parnes model' is displayed in a large, white, sans-serif font. It is centered within a dark rectangular area that features a glowing, horizontal, yellow-orange light effect behind the text, creating a sense of depth and focus.

Osborne-Parnes model

- **Mess-finding:** Identify a goal or objective.
- **Fact-finding:** Gathering data.
- **Problem-finding:** Clarifying the problem
- **Idea-finding:** Generating ideas
- **Solution-finding:** Strengthening & evaluating ideas
- **Acceptance-finding:** Plan of action for Implementing ideas

Project-based Learning

- Connected to real world situations
- [Yr. 7 Relationships with Asia](#)
- Yr. 8 *Minecraft* and sustainability
- Yr. 9 Cultural Perspectives 2014/
Biomechanics – STEM + English 2015
- Yr. 10 Action learning projects



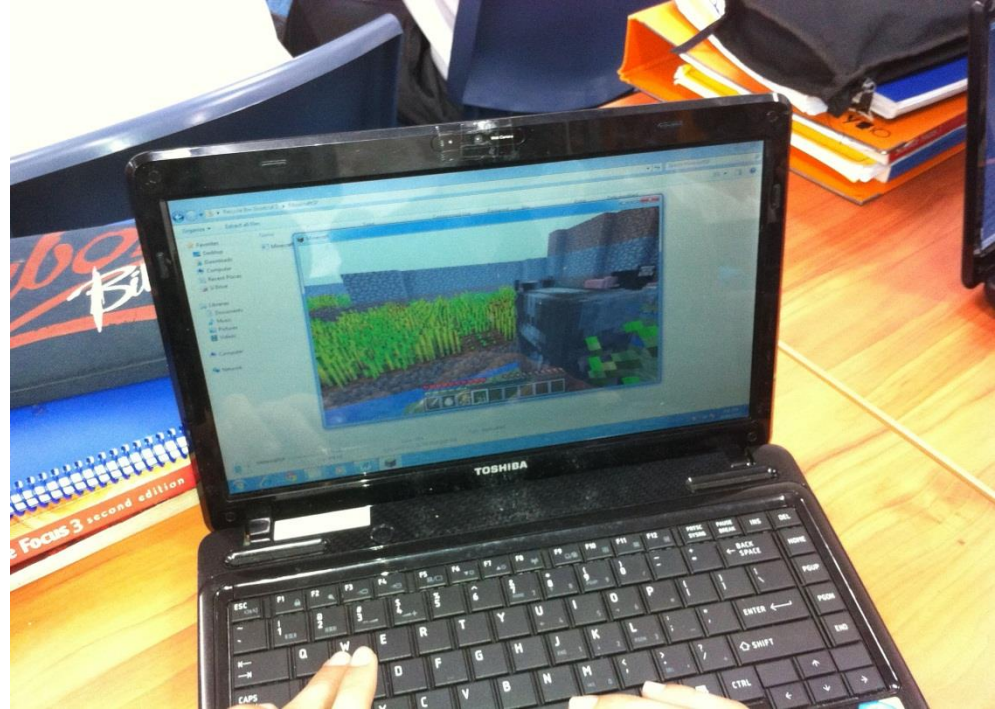
Online Gaming

- Develop a low energy, sustainable city using *Minecraft*
- Inter-disciplinary
- Pre and post survey
- Deadlines and challenges
- Teams of three
- Flip Learning model
- City design and a report



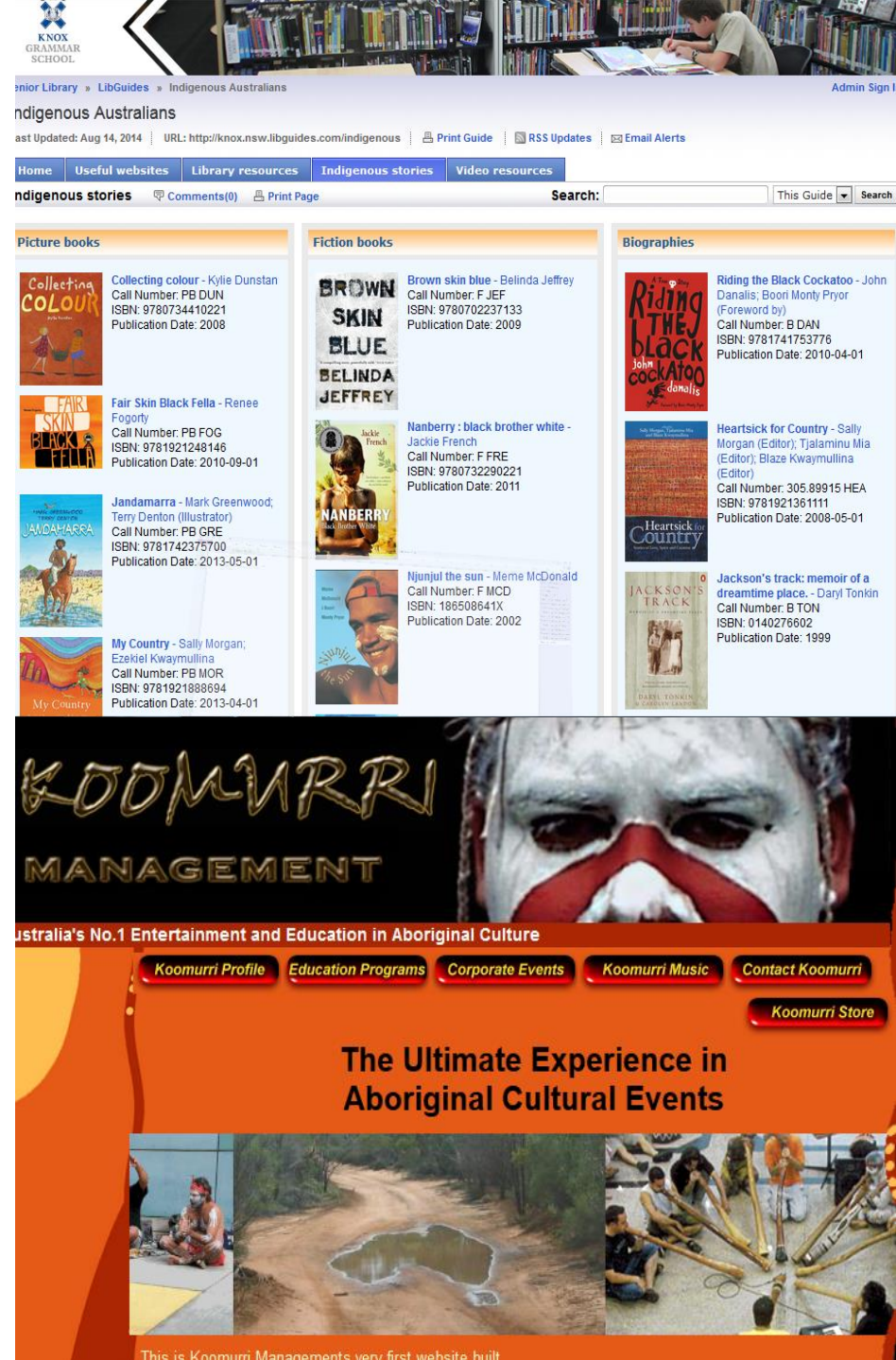
Integrated Tasks

‘Creativity typically involves problem solving, using your imagination and critical thinking skills. In terms of the actual assessment task there was lots of creativity involved such as using your imagination to design the sustainable city and critical thinking skills to mine and use the resources to build the city’ (Yr.8 student).



Year 9 ILA

- Mentor support and peer marking
- Connected assessment tasks in all subjects Terms 2-3
- Presentation that integrates the learning
- 'Curiosita' evening
- Library resources and research skills:
<http://knox.nsw.libguides.com/content.php?pid=571702&sid=4714544>
- Drama faculty: presentation skills
- Incursion: Koomurri -
<http://www.koomurri.com/>



The image displays two websites side-by-side. The top website is the 'Indigenous Australians' LibGuides page from Knox Grammar School, featuring a navigation bar with links like 'Home', 'Useful websites', and 'Library resources'. It lists various books under categories such as 'Picture books', 'Fiction books', and 'Biographies', including titles like 'Collecting colour', 'Brown skin blue', and 'Riding the Black Cockatoo'. The bottom website is 'Koomurri Management', which promotes Aboriginal cultural events. It features a large image of a person in traditional white body paint with a red nose and mouth, and text that reads 'The Ultimate Experience in Aboriginal Cultural Events'. Navigation buttons for 'Koomurri Profile', 'Education Programs', and 'Contact Koomurri' are visible.

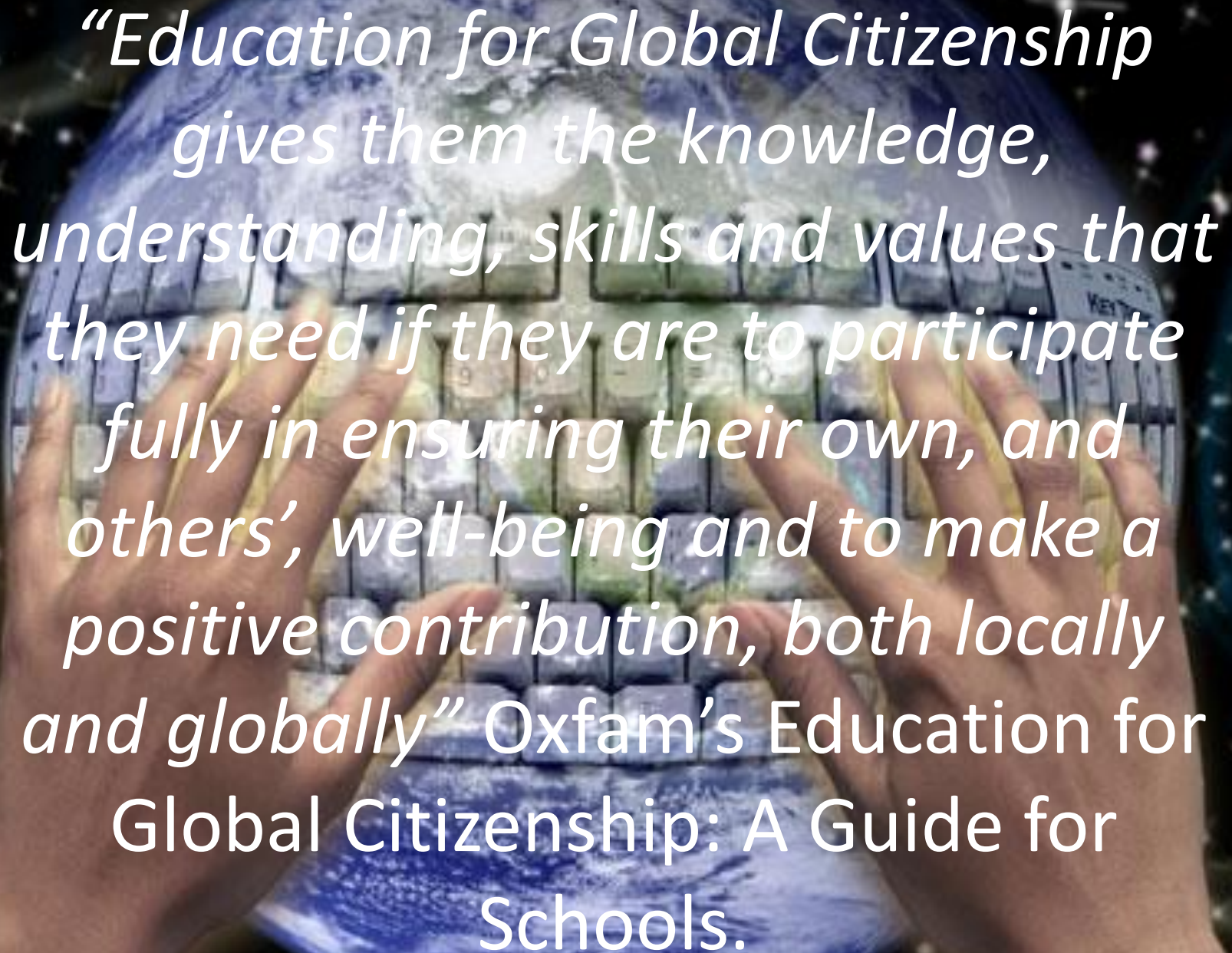
Year 10 – Action Research Project

Student Opportunities

As provided to the students:

- Choose a topic you are interested in and even passionate about.
- Become better informed about your topic of interest through inquiry and applying effective research methods.
- Develop a deep understanding of this topic enabling *innovation* THROUGH *investigation*.
- Collect, synthesise, assess and evaluate the information and data collected throughout the investigation.
- Develop the skills to be a confident presenter and communicator.





“Education for Global Citizenship gives them the knowledge, understanding, skills and values that they need if they are to participate fully in ensuring their own, and others’, well-being and to make a positive contribution, both locally and globally” Oxfam’s Education for Global Citizenship: A Guide for Schools.

Global Connections

- Connecting our students globally to students and experts in other places.
- Singh (2010) asserts that culture is an excellent vehicle for inspiring creative thinking and collaborative problem solving.
- When students share ideas and strategies with students from other countries they are encouraged to think divergently and develop innovative approaches.
- International competitions
- *Asia Connexions*



Global Writing Project

Global competitions marked by teachers and students!

weWrite



Join schools from across the world in a Global Writing Project that will enable teachers and students to share ideas, strategies and [exemplars online!](#)



Contact Karen Yager – yagerk@knox.nsw.edu.au

WeWrite2connect

- **Celebrating diversity of place:** Your challenge is to create an imaginative piece of writing in a form of your choice that is centred on something that is unique about your place.



The orange in our flag
stands tall and proud,
Waving with elegance,
Over the great big crowd
Our fields of sarson,
With yellow all around
give out delicate sounds
Our great big forests,
With dashes of green
Stand tall in the sun
With everlasting sheen
T'was poison he drank,
And hence became blue
The immortal Shiva:
Listening to whose stories we grew
Indigo and Violet,
The colours of love,
Which bind us together
When push comes to shove
-Vistaar; Class XI-A Mira Model School
New Delhi, India



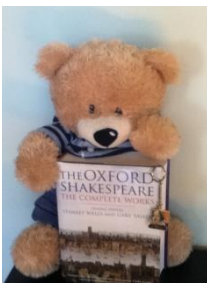
WeWrite2connect

- **The Fascinating Adventures of Teddy:** Your challenge is to use **some** or **all** of the photographs provided and describe the adventures of Teddy. If you would like to use another toy or a real life animal you can write a story about their adventures instead! Remember to include photographs of their adventures.



Once again we arrived back in the cold weather of Scotland but not for long; we had to get ready for another adventure! We were heading off to the Globe Theatre in London to see The Taming of the Shrew. What a fabulous play! After London it was time to head south to Cornwall and more Shakespeare at the Minnack theatre. The seats had all the names of Shakespeare's plays on them. We also travelled to Port Isaac where we met a postman delivering letters. He was very nice and told us some funny jokes. PB likes to laugh.

You would think that PB would be tired of travelling by now but he just kept going. The green shores of Ireland, then on to Cyprus for a holiday. There were so many cats that we even counted them one afternoon but stopped at about 1000. It was so much fun. We even adopted a donkey called 'Paul- Rango'. **Dalbeattie HS**



WeWrite2connect

- **To see a world in a grain of sand:** Your challenge is to choose an object and use it as a trigger for an imaginative piece of writing that features one or more haikus. Your object could be a shell, a locket, a teddy bear, bird, the moon, a photograph, a famous painting...the possibilities are endless.



WeWrite2connect

- **Through my Eyes:** Your challenge is to compose an original story or poem about something in the natural world.
- The poem or story must be from the perspective of what you have chosen and you have to take an original photograph or draw an original picture of what you are writing about.



WeWrite2connect

- **Ekaphrasis:** Your challenge is to compose an original story or poem that has been inspired by a photograph you have taken or an image that has captured your attention. You need to include the following:
 - The photograph or image
 - A clear connection between the photograph or the image and the story or poem.
 - At least one metaphor and one simile.
 - A 150 word statement to accompany the story or poem that explains how and why you were inspired.



I hear stories of you and smile
No memories, but thoughts are enough
I know you're watching over us
You have been all our lives

A guardian angel
You are our protector
Showing us the way
Leading us on in our journeys

You are dearly missed
But we know you're here
I feel your presence
When I visit your old home

Sierra North Stokes HS





- *'When students get to see other students' work it deepens understanding'* (Nicol, 2008).
- Google docs
- Class blog or wiki
- Global connections:
<http://www.epals.com/projects/info.aspx?DivID=index>
E.g. digital storytelling and global warming





Global Projects

- <http://www.virtualclassroom.org/index.html> - competition
- **epals:**
<http://www.epals.com/projects/info.aspx?DivID=index> E.g.
digital storytelling and global warming
- **Flat Classrooms:** <http://www.flatclassroomproject.org/>
- **iLearn:** <http://media.learn.org/home>
- **Global School Net: Cyberfair and Doors to Diplomacy:**
<http://www.globalschoolnet.org/>
- **Skype in the Classroom** <http://education.skype.com/>
- ***WeWrite2connect:*** Global writing project across disciplines



Global Projects

- <https://www.youngwriters.co.uk/competitions/lets-get-writing.php>
- <http://theglobalwritingworkshop.wikispaces.com/>
- <http://www.globaleducationconference.com/page/2014-conference>
- <https://monsterproject.wikispaces.com/Welcome>
- <http://www.classroom20.com/>
- <http://www.100people.org/index.php#a>
- <http://www.peacecorps.gov/wws/>
- <http://www.globaleducation.edu.au/>
- <http://my-ecoach.com/online/webresourcelist.php?rlid=6499#4>
<http://www.globe.gov/>



Student Voice

- Enabling our students to have a choice in what they learn and how they demonstrate the learning.
- *'validating and authorising them to represent their own ideas, opinions, knowledge and experiences throughout education in order to improve our schools'* (Fletcher 2005).



Student Voice

- Student involvement in school and community development.
- Students as researchers and co-enquirers – Action Research Projects.
- Students making significant inputs to teaching and learning, and organisational decision-making.
- Student Future Think Tank

